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3.2.8 Cost estimate

3.2.8 Cost estimates

For preliminary cost estimating, the designer should use the costs in Table 3.2.8, recognizing that the estimates will be reasonably valid for comparing bridge options but not accurate for current construction costs. For a typical new bridge cost estimate, multiply the unit cost in the table by the bridge deck area, measured from outside edge to outside edge of deck and from face to face of paving notch. Adjust the cost upward for complexity, staging, and other applicable costs using the amounts listed in the table. If the construction situation is highly unusual, consult the supervising Section Leader.

Table 3.2.8. Preliminary costs for typical Iowa bridges

Cost Item	Unit Cost ^{(1), (2)}
New continuous concrete slab (CCS) bridge	\$ 90.75 /ft ² (\$ 807/m ²)
New pretensioned prestressed concrete beam (PPCB) bridge	\$ 100.85 /ft ² (\$ 915 /m ²)
New bulb tee (BT) bridge	\$ 105.99 /ft ² (\$ 969 /m ²)
New rolled steel beam three-span standard bridge	\$ 105.95 /ft ² (\$ 1022 /m ²)
New continuous welded plate girder (CWPG) bridge	\$ 130.449 /ft ² (\$ 1183 /m ²)
Complex bridges: variable width, urban area such as Des Moines, construction over traffic	Add for each item \$5.00/ft ² (\$55/m ²)
Staged bridges	Add 10%
Cofferdam for pier construction	\$25,000 per pier
Detour Bridge 40-foot (12.2 m) span, 3 panel 32-foot (9.8 m) width	\$ 40,000 30,000 per span
Bridge removal	\$7.00/ft ² (\$75/m ²)
Bridge widening, including removal and staging	\$ 200/ft ² (\$ 2153/m ²)
Bridge aesthetics	Add 3% ⁽⁵⁾
RCB Culvert (CIP), in close proximity or corridor projects	\$ 550 /yd ³⁽⁴⁾
RCB Culvert (CIP), individual projects or extensions	\$ 600 /yd ³⁽⁴⁾
Mobilization	10%
Contingency	B0 =20% ⁽³⁾ D0, B1, D2 = 15% B2= 5%

Table notes:

- (1) Unit costs for new construction do not include mobilization, removal of an existing structure, extensive river or stream channel work, large quantities of riprap, clearing and grubbing, approach slabs, and other construction work not part of the bridge.
- (2) Unit costs were current as of April ~~2014~~2015.
- (3) See abbreviations [BDM 3.1.4] for definitions of these event codes.
- (4) Unit cost includes concrete, reinforcing bars, minor grading and construction.
- (5) Additional aesthetic costs should be considered for gateway or signature structures. See the Draft Aesthetic Guidelines for more information.